

Low Loss SMA Male to TNC Male Cable LMR-100 Coax with Times Microwave Components

FMCA10059



Configuration

- Connector 1: SMA Male
- Connector 2: TNC Male
- Cable Type: LMR-100A-PVC
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket

Applications

- General Purpose
- Laboratory Use

Description

The SMA male to TNC male cable using LMR-100 coax, part number FMCA10059, from Fairview Microwave is in-stock and ships same day. This Fairview SMA to TNC cable assembly has a male to male gender configuration with 50 ohm flexible LMR-100A-PVC coax. Fairview Microwave's flexible RF cable assemblies are ideal for applications where tight bends and continual flexure are required. The FMCA10059 SMA male to TNC male cable assembly operates to 6 GHz. The double shielding of this Fairview cable assembly provides excellent shielding effectiveness of better than 90 dB.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other RF cable assembly value added services including connector orientation or clocking, heat shrink booting and labeling are also available. RF testing can also be performed to document the electrical performance of your cable assembly.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.4:1	
Velocity of Propagation		66		%
RF Shielding	90			dB
Group Delay		1.54 [5.05]		ns/ft [ns/m]
Capacitance		30.8 [101.05]		pF/ft [pF/m]
Inductance		0.077 [0.25]		uH/ft [uH/m]
DC Resistance Inner Conductor		81 [265.75]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ohms/1000ft [Ohms/Km]
Jacket Spark			2,000	Vrms

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	250	500	1000	2500	5800	MHz	
FMCA10059	Custom Lengths Available	Insertion Loss (Typ.)	0.115	0.165	0.24	0.398	0.627	dB/ft	
			0.38	0.55	0.79	1.31	2.06	dB/m	
FMCA10059-24	24 Inch	Insertion Loss (Typ.)	0.53	0.66	0.83	1.21	1.75	dB	0.243
FMCA10059-36	36 Inch	Insertion Loss (Typ.)	0.65	0.82	1.07	1.61	2.38	dB	0.31
FMCA10059-48	48 Inch	Insertion Loss (Typ.)	0.76	0.99	1.31	2.01	3	dB	0.377
FMCA10059-100CM	100 CM	Insertion Loss (Typ.)	0.68	0.87	1.14	1.72	2.55	dB	0.444
FMCA10059-200CM	200 CM	Insertion Loss (Typ.)	1.06	1.41	1.93	3.02	4.61	dB	0.511

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1: 0.25 dB
 Loss due to Connector 2: 0.1*SQRT(FGHz) dB
 Base Weight: 0.243 pounds
 Additional Weight per Inch: 0.1575 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter 0.5 in [12.7 mm]
 Weight 0.243 lbs [110.22 g]

Cable

Cable Type LMR-100A-PVC
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper Clad Steel
 Dielectric Type PE
 Number of Shields 2
 Shield Layer 1 Aluminum Tape
 Shield Layer 2 Tinned Copper Braid
 Jacket Material PVC, Black
 Jacket Diameter 0.11 in [2.79 mm]
 One Time Minimum Bend Radius 0.25 in [6.35 mm]
 Repeated Minimum Bend Radius 1 in [25.4 mm]
 Bending Moment 0.1 lbs-ft [0.14 N-m]
 Flat Plate Crush 10 lbs/in [0.18 Kg/mm]
 Tensile Strength 15 lbs [6.8 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male	TNC Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Brass, Gold	Beryllium Copper, Gold
Contact Plating Specification	15 µin minimum	15 µin minimum
Dielectric Type	PTFE	Teflon
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	200 µin minimum	100 µin minimum
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Plating Specification	200 µin minimum	100 µin minimum

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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Typical Performance Data

How to Order

Part Number Configuration:

FMCA10059

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Unit of Measure:
cm = Centimeters
<blank> = Inches
Length
Base Number

Example: FMCA10059-12 = 12 inches long cable
FMCA10059-100cm = 100 cm long cable

Low Loss SMA Male to TNC Male Cable LMR-100 Coax with Times Microwave Components from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Low Loss SMA Male to TNC Male Cable LMR-100 Coax with Times Microwave Components FMCA10059](#)

URL: <https://www.fairviewmicrowave.com/low-loss-sma-male-to-tnc-male-cable-lmr-100-coax-with-times-microwave-components-fmca10059-p.aspx>

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